

described by the following article, which is also incorporated by reference herein:

IEEE J. Quantum Electron., 26(1990), p. 2025.

Jonsson, B.; Eng, S.T.:

"Solving the Schrödinger Equation in Arbitrary Quantum-Well Potential Profiles Using the Transfer Matrix Method".

Summary of the Invention

The present invention is directed to the calibration of a spacial scale (spatial coordinates) of technical devices, which work on the basis of high-resolution and ultrahigh-resolution imaging processes. These are imaging processes based on particle flows, such as scanning electron microscopy, scanning transmission electron microscopy, or scanning probe microscopy (atomic force microscopy, scanning tunneling microscopy).

The technical task at hand is to provide a scale which will enable the technical devices mentioned above to be calibrated with very high precision. The present invention achieves this objective by enabling scales to be manufactured and calibrated in the nanometer range.

More particularly, the present invention provides a scale in the nanometer range for technical devices which are used for the high-resolution or ultrahigh-resolution imaging of structures characterized in that:

- a to construct the scale, at least two different crystalline or amorphous materials are used for the heterolayer structure, which are easily distinguished from one another by their contrast when they are imaged using high-resolution or ultrahigh-resolution imaging methods; that
- b the different crystalline or amorphous material layers used are deposited by means of a material deposition method in the deposition direction, one after another in alternating sequence onto a substrate material, as a heterolayer